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ART 2.1.1.1

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/527473



Applicant's or agent's file reference NO7388/WO		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/10089	International filing date (day/month/year) 11.09.2003	Priority date (day/month/year) 11.09.2002	
International Patent Classification (IPC) or both national classification and IPC A23K1/18			
Applicant NESTEC LTD. et al.			

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 08.04.2004	Date of completion of this report 03.12.2004
Name and mailing address of the international examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Couzy, F Telephone No. +49 89 2399-7503 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/10089**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-30 as originally filed

Claims, Numbers

6-49 as originally filed

1-5 filed with telefax on 03.11.2004

Drawings, Sheets

1-6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-49
	No: Claims	
Inventive step (IS)	Yes: Claims	1-49
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-49
	No: Claims	

2. Citations and explanations

see separate sheet

V. Novelty and inventive step

V.1 Reference is made to the following documents:

- D1: WO 03/024240 A (NESTEC SA ;SAYLOCK MICHAEL J (US); DIXON.DAN K (US)) 27 March 2003 (2003-03-27)
- D2: US-A-4 454 804 (MCCULLOCH MICHAEL G) 19 June 1984 (1984-06-19)
- D3: US-B-6 379 7381 (MAY STEVE G ET AL) 30 April 2002 (2002-04-30)
- D4: US-A-5 792 504 (SAYLOCK MICHAEL J ET AL) 11 August 1998 (1998-08-11)
- D5: PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13, 5 February 2001 (2001-02-05) & JP 2000 300236 A (NISSHOKU SHOJI KK;DOGGY MAN H A CO LTD); 31 October 2000 (2000-10-31)
- D6: US-A-6 146 679 (HEYHOE THOMAS CARL) 14 November 2000 (2000-11-14)
- D7: EP-A-0 818 154 (NESTLE SA) 14 January 1998 (1998-01-14)

V.2 Novelty and inventive step

V.2.1 Process claims 1-27

Document D2 discloses a process where a pet food product is obtained by injection of a colorant in a pressurized zone, made of a tubular member (see Fig. 1) of an extruder, and where the emulsion is mechanically disrupted after the extrusion step. However, that process differs from that of the invention by the fact that in D2, the injection is made into the center of the mass moving through the extrusion dye (col.2 li.37-40), for the purpose of obtaining a uniform distribution of the colorant within the product. Same is true for D7, where the colorant is injected within the flow (see Figure 4), to obtain a marbled product. In contrast, current independent claim 1 requires that the injection is made externally. Lastly, there is no colouring disclosed in D3-D4, no addition of a colorant in the pressurized zone in D5, and no emulsification in D6 (the product obtained not being a pet food). Thus, the subject-matter of said claim 1 and of claims 2-27 dependent thereof is new (Art. 33 (2) PCT).

Taking D2 or D7 as the closest prior art, there is no suggestion in these documents of a product having pieces having darkened surfaces to simulate grill marks, as in contrary the dye is uniformly distributed in the product of D2 (see col.4 li.27-30 and col.6 li.42-45), and in D7 it is the mass which is colored, although not uniformly so as to obtain a

marbled product. Thus, the process according to claims 1-27 involves an inventive step (Art. 33 (3) PCT).

V.2.2 Process claims 28-38

There is no suggestion in any of D2-D7 of a product having pieces having darkened surfaces to simulate grill marks. Taking again D2 as the closest prior art, the dye is uniformly distributed in the product of D2 (see col.4 li.27-30 and col.6 li.42-45). Same can be said about D7, where the resulting product is marbled. Thus, the process of claims 28-38 is new and involves an inventive step (Art. 33 (2-3) PCT).

V.2.3 Product claims 39-49

None of D2-D7 discloses the product of claims 39-49, which is required to have a "base color and a contrasting exterior color that simulates grill marks on natural meat". Further, taking any of D2-D7 as the closest prior art, there is no hint in any of these documents that such a product made of pieces which exhibit darkened surfaces simulating grill marks on meat might be obtained. Thus, the subject-matter of claims 39-49 is both new and involves an inventive step (Art. 33 (2-3) PCT).

V.2.4 Attention is drawn (R.64.3 and 70.10 PCT) to document D1 which is not comprised in the state of the art in the sense of R. 64 (1) PCT, but which apparently discloses a pet food product bearing grill-alike marks (see p.3 li.24-26) according to claims 39-41, 44 and 45. That pet food product is however obtained through an alternative process, the marks being obtained by exposure of the body to a source of dry heat (p.4 li.24-25). Additionally, the mixed product of claims 48-49 is not disclosed therein also.

V.2.5 The most relevant parts of the above cited documents are those identified in the International Search Report.

V.3 The subject-matter of all claims is industrially applicable in the sense of Art. 33 (4) PCT.

REPLACED BY
ART 34 AMDT

CLAIMS:

- 5 1. A process for producing a pet food comprising:
 mixing a protein source to produce an emulsion;
 heating said emulsion above the boiling point of water;
 pressurizing said emulsion in a confined pressurized zone;
 coloring said emulsion in said confined pressurized zone; and
10 discharging said emulsion in discrete pieces or chunks of pet food.
2. The process of Claim 1 wherein said protein source comprises at least one of a
 vegetable source, a meat source, and a meat by-product source.
- 15 3. The process of Claim 2 wherein said vegetable source comprises at least one of a
 soy source, a corn source, a rice source, a peanut source, a sunflower source, a linseed
 source, a canola source, and a wheat source.
4. The process of Claim 2 or Claim 3 wherein said meat source comprises at least one
20 of a beef source, a chicken source, a fish source, and a pork source.
5. The process of Claim 4 wherein said meat source contains from about 15% to about
 25% fat by weight.